

PATENT CLAIMS

1. Apparatus (1; 101; 201) for preventing unintentional movement of a road freight vehicle (2) in association with loading/unloading at a loading dock (3), **characterized by**:

- an arm (4; 104; 204) that is telescopically extendable and retractable, respectively;
- the telescopically extendable and retractable arm being stationary supported at a first end (4A; 104A; 204A) thereof and being pivotal about two axes (P1, P2) in association with said first end; and
- the telescopically extendable and retractable arm being provided with an engagement means (5; 105; 205) in a second end (4B; 104B; 204B) thereof.

2. Apparatus (1; 101) according to claim 1, **characterized in** that:

- the telescopically extendable and retractable arm (4; 104) with the first end (4A; 104A) thereof is stationary supported in association with the loading dock (3); and
- the engagement means (5; 105) in the second end (4B; 104B) thereof may be releasably brought into engagement with a part (2A) fixed to the vehicle.

3. Apparatus (201) according to claim 1, **characterized in** that:

- the telescopically extendable and retractable arm (204) with the first end (204A) thereof is stationary supported on the vehicle (2); and
- the engagement means (205) in the second end (204B) thereof may be releasably brought into engagement with an anchor (206) that is fixed relative to the loading dock (3).

4. Apparatus (1; 101) according to claim 2, **characterized in** that the first end (4A; 104A) of the telescopically extendable and retractable arm (4; 104) is stationary supported on a support (7) provided in association with a front surface (3A) of the loading dock (3) that faces the truck (2) during loading/unloading and in that in association with the support, the arm (4; 104) is pivotally journaled about a vertical and a horizontal axis (P1 and P2, respectively).

5. Apparatus (1; 101) according to any of claims 1, 2 and 4, **characterized in** that the second end (4B; 104B) of the telescopically extendable and retractable arm (4; 104) is provided with an engagement means (5; 105) comprising a generally wedge-shaped chock (6; 106) intended

for engaging a vehicle wheel (2A) and in that the chock is capable of limited pivoting about at least one axis (P3, P4).

6. Apparatus (1; 101; 201) according to any of claims 1-5, **characterized in** that the telescopically extendable and retractable arm (4; 104; 204) consists of first and second tubes (14 and 15, respectively) that are telescopically displaceable one in the other, in that a hydraulic piston and cylinder assembly (16) is received in the first tube (14) and with its cylinder (16B) and with its piston rod (16A), respectively, is connected to the first and second tubes, respectively.

10 7. Apparatus (1; 101; 201) according to any of claims 1-6, **characterized in** that at a position between its first and second ends (4A; 104A; 204A, 4B; 104B; 204B) the telescopically extendable and retractable arm (4; 104; 204) is connected to an adjustable support device (8; 108; 208) permitting controlled pivoting about the first and second axes (P1, P2).

15 8. Apparatus (1) according to claim 7, **characterized in** that the adjustable support device consists of a support leg (8) that is adjustable in height in order to permit pivoting of the arm (4) about a second horizontal axis (P2) and that in a lower end thereof carries a pivoting support wheel (8A) for permitting pivoting of the arm (4) about a first vertical axis (P1).

20 9. Apparatus (101; 201) according to claim 7, **characterized in** that the adjustable support device consists of a balancing spring (108; 208) engaging a bracket (108A; 208A) at the arm (104; 204) in order to permit balanced-out pivoting of the arm (104) about the first and second axes (P1, P2).

25 10. Apparatus (1; 101) according to claim 5 and any of claims 6-9, **characterized in** that the chock (6; 106) has a curved surface (6A; 106A) adapted for engaging the circumference of a vehicle wheel (2A) and a side stop (9; 109) that is provided on one side of the curved surface and that is adjustable in a direction (S) towards and away from, respectively, the curved surface for engaging the side of a vehicle wheel (2A).

30 11. Apparatus (1; 101) according to any of claims 2 and 4-9, **characterized in** that the telescopically extendable and retractable arm (4; 104) is supported on the support (7) with its first end (4A; 104A) positioned at a substantial distance (H2) above a vehicle (2) parking surface (20).

12. Apparatus (1; 101) according to claim 11, characterized in that the arm (4; 104) is supported on the support (7) with its first end (4A; 104A) positioned at a distance (H2) above the vehicle parking surface (20) that exceeds half the height (H1) between said vehicle parking surface and a loading plane (3B) of the loading dock (3).